

AMENDMENTS TO THE SPECIFICATION

Please amend the section entitled "Summary of the invention" beginning on page 2, line 21, as follows:

In one aspect, the present invention provides a steaming device for a baker's oven including:

a covered steam generation chamber, located adjacent at least one heating element in an oven compartment of the baker's oven, the covered steam generation chamber being closed at one end and having at least one steam outlet at or adjacent the other end;

at least one heat sink member in the covered steam generation chamber to provide a heat source to convert steaming water introduced into the covered steam generation chamber into steam; and

a steaming water pipe having at least one nozzle operable to direct water into the covered steam generation chamber, the steaming water being convertible into steam within the covered steam generation chamber and releasable to the oven compartment through the at least one steam outlet.

In a preferred form of the invention, the covered steam generation chamber is an elongate chamber adjacent to at least one elongate heating chamber containing at least one heating element. The steam generation chamber is separated from the at least one heating chamber by a dividing wall.

The heating chamber may have one or more heat outlets to enable the transfer of the heat generated by the heating element(s) to the oven compartment.

Preferably, the or each heat sink member is a strip of bar of metal, eg., mild steel, having a thermal mass sufficient to maintain the temperature within the oven compartment within a prescribed temperature range when the steaming water is introduced into the steaming compartment and converted to steam.

In the operation of the steaming apparatus of the invention, the heat sink members are heated by heat transferred from the heating rods in the heating chamber to the steam chamber. The water for steaming is introduced into the steam chamber by a water pipe, preferably located at or adjacent the closed end of the steam chamber. The water pipe is preferably positioned towards the front of the oven compartment and extends transversely of the steaming chamber. The steaming water enters the steaming chamber at or adjacent the closed end and the water and generated steam progress down the steaming chamber and exit the steam chamber at the at least one steam outlet. Generally all of the steaming water is converted to steam by heat from the ballast bar before the water has travelled three quarters of the length of the steaming chamber and preferably within one half to three quarters of the length of the heating element.

The steam element preferably directs the steam into the oven compartment into a zone (or zones) at the rear of the oven and away from direct contact with an ceramic surfaces. This zone or zones may be above the bakery products.

As steam is only needed in the production of about 20% of a typical bakery's products, the oven needs to be used in non steaming mode most of the time. Accordingly, ovens provided with internal steaming devices must be able to allow heat to dissipate freely and evenly from the heating rods throughout the oven.

Accordingly it is preferable that the heating chamber be provided with a plurality of heating outlets along the length of the heating chamber. The plurality of heating outlets are preferably provided in the side of the heating chamber to prevent the outlets being blocked by product debris falling onto the heating chamber.

In a second aspect, the present invention provides a baker's oven having at least one oven compartment, the oven compartment being heated by a plurality of parallel heating rods arranged across the width of the oven compartment, at least one parallel heating section of the heating rod being provided with a steaming device comprising a covered steam generation

chamber adjacent the at least one heating element, the covered steam generation chamber being closed at one end and having at least one steam outlet at or adjacent the other end; the covered steam generation chamber being provided with at least one heat sink member to provide a heat source to convert steaming water introduced into the covered steam generation chamber into steam; and a steaming water pipe having at least one nozzle operable to direct water into the covered steam generation chamber, the steaming water being converted into steam within the steam generation chamber and being released to the oven compartment through the at least one steam outlet.

Preferably, the baker's oven is of the rotary type, having one or two oven compartments provided on one or more, eg., three, four or five levels.

In a third aspect, the present invention resides in a steaming method for bakers' ovens including the steps of:

providing a covered steam generation chamber adjacent at least one heating element in an oven compartment of a baker's oven, the steam generation chamber being closed at one end and having at least one steam outlet at or adjacent the other end;

introducing a controlled volume of water into the steam generation chamber at or adjacent the one end;

converting the water into steam within the steam generation chamber; and

releasing the steam from the covered steam generation chamber through the steam outlet(s) into the oven compartment.

In a preferred form of the invention, the steam outlet is towards the rear of the compartment away from any ceramic surfaces in the oven and the steaming water is introduced through a water pipe which extends transversely of the covered steam generation chamber. More than one steam generation chamber may be provided in the oven adjacent a respective heating element, preferably a parallel section heating element which extends from the vicinity of the front of the oven towards the rear.